

REMARKS

Claims 1, 4-5, 8-9, 13, 11-12 and 20 are all the claims pending in the application, prior to the present Amendment.

Claims 1, 4-5, 8-9 and 11-12 have been rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2000-265232 to Kamio et al in view of JP 64-039339 to Sakamoto et al and US 2004/0261615 Yanagimoto et al.

Applicant submits that Kamio et al, Sakamoto et al and Yanagimoto et al do not disclose or render obvious the subject matter of the presently claimed invention and, accordingly, requests withdrawal of this rejection.

Applicants have amended claim 1 to recite a value of 2.4 mass% for the amount of Ni, based on Example 5 of the present specification. In addition, applicants have amended claim 1 to require the presence of Zr in an amount of 0.04 to 0.3 mass% and V in an amount of 0.01 to 0.15 mass%. Further, applicants have amended claim 1 to recite that the pre-heat treatment includes a treatment of maintaining the forging material at a temperature of 370 to 400°C for two to six hours. Support for this range can be found in Example 5 which discloses a pre-heat temperature of 370°C and page 32, line 16 of the specification which discloses a preferred upper value of 400°C for the pre-heat temperature. Applicants have canceled claims 2, 4 and 5.

Thus, claim 1 is directed to a method for producing an aluminum-alloy shaped product, in which the aluminum alloy serving as a forging material contains Ni and P, with the Ni being present in an amount of 2.4 to 3 mass%, Zr in an amount of 0.04 to 0.3 mass%, and V in an amount of 0.01 to 0.15 mass%, and wherein a pre-heat temperature of the forging material, which temperature is maintained for two to six hours, is 370 to 400°C.

Kamio et al, Sakamoto et al and Yanagimoto et al do not disclose or suggest an aluminum alloy that contains Ni and P, with the Ni being present in an amount of 2.4 to 3 mass%, Zr in an amount of 0.04 to 0.3 mass%, and V in an amount of 0.01 to 0.15 mass%, and wherein a pre-heat temperature of a forging alloy, which temperature is maintained for two to six hours, is 370 to 400°C.

Kamio et al, which is the primary reference relied upon by the Examiner, does not disclose an aluminum alloy that contains Ni, V or Zr, and does not disclose or suggest the use of the pre-heat temperature range recited in claim 1 for such an alloy.

The Examiner has relied on Sakamoto et al for teaching the use of Ni in an aluminum alloy. However, the Ni in Sakamoto et al is disclosed as an optional element that can be present in an amount of 0.3 to 2.0%. Sakamoto et al do not disclose or suggest that the Ni can be present in an amount of 2.4 to 3 mass% as recited in claim 1 as amended above. The lower 2.4% value of Ni which is recited in claim 1 exceeds the upper value of 2.0% of Sakamoto et al.

Further, neither Sakamoto et al nor Kamio et al discloses a composition that contains V, and neither discloses a composition that contains Zr and V. Yanagimoto et al do not supply the deficiencies of Sakamoto et al and Kamio et al because Yanagimoto et al do not disclose or suggest an alloy that contains Zr in an amount of 0.04 to 0.3 mass% and V in an amount of 0.01 to 0.15 mass%.

In addition, the temperature which is set forth in claim 1 as amended above is not disclosed or suggested by Kamio et al or Sakamoto et al. The lowest pre-heat temperature disclosed in Kamio et al is 490°C, which is far higher than the upper value of 400°C of claim 1. Yanagimoto et al also do not disclose or suggest the temperature set forth in claim 1 for the alloy of the present invention.

Moreover, as can be understood from “Example 5” in Tables 1 and 2 of the present specification, the present invention can achieve a high level effect in each of enhanced tensile characteristics and enhanced fatigue strength.

As can be seen from the above, the combination of elements in the amounts set forth in claim 1 and the pre-heat condition set forth in claim 1 are not disclosed or suggested by the cited reference.

In view of the above, applicant submits that the present invention was not obvious to one of ordinary skill in the art from the disclosures of Kamio et al, Sakamoto et al and Yanagimoto et al and, accordingly, requests withdrawal of this rejection.

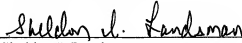
Claims 13 and 20 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Kamio et al (JP 2000-265232) in view of Sakamoto et al (JP 64-039339) and Yanagimoto et al (US 2004/0261615) as applied to claim 1 above, and further in view of Evans et al.(US 7,267,734).

Claims 13 and 20 depend from claim 1. Accordingly, applicant submits that these claims are patentable for the same reasons as set forth above for claim 1 and, therefore requests withdrawal of this rejection.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,


Sheldon I. Landsman
Registration No. 25,430

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

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